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TITLE: Immunohistochemical labelling for prostate specific antigen in non-prostatic tissues.

AUTHORS: Alanen KA; Kuopio T; Koskinen PJ; Nevalainen TJ

AUTHOR AFFILIATION: Department of Pathology, University of Turku, Finland.

SOURCE: Pathol Res Pract 1996 Mar;192(3):233-7

CITATION IDS: PMID: 8739470 UI: 96316240

ABSTRACT: Immunohistochemical detection of prostate specific antigen (PSA) in metastases of adenocarcinomas is widely used as an aid to identify the prostatic origin of metastatic cells. However, on the one hand, PSA may not be expressed in some poorly differentiated prostatic carcinomas, while on the other, PSA immunoreactivity has been found in small amounts in non-prostatic tissues. The aim of the current study was to evaluate the prevalence of PSA immunoreactivity in normal non-prostatic tissues and in breast carcinoma. PSA was localized by immunohistochemistry with four commercial antibodies in 34 different normal human tissues, and in 15 ductal and seven apocrine breast carcinomas. Concentrations of PSA in tissue homogenates of prostate and nine non-prostatic tissues from autopsied subjects were measured by a two-site immunoradiometric assay. Weak PSA immunoreactivity was found by immunohistochemistry in kidney, parotid gland and pancreatic tissues. Variable PSA immunoreactivity was seen in three cases of ductal (20%) and two cases of apocrine breast carcinoma (28%). No consistent PSA immunoreactivity was found in homogenates of non-prostatic tissues by the immunoradiometric assay. We conclude that PSA is a quite specific marker of prostatic tissue. However, there are some non-prostatic neoplastic and normal tissues that express PSA. Therefore, a definite diagnosis of metastasis of prostatic origin cannot be made on the basis of immunolabelling for PSA alone.

MAIN MESH HEADINGS:
Organ Specificity/*immunology
Prostate/*chemistry
Prostate-Specific Antigen/*analysis

ADDITIONAL MESH HEADINGS:
Antibodies, Neoplasm/chemistry
Breast Neoplasms/chemistry
Breast Neoplasms/immunology
Carcinoma/chemistry
Carcinoma/immunology
Human

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TITLE: Incidence of occult lymph node metastases in pathological stage C (pT3N0) prostate cancer.

AUTHORS: Freeman JA; Esrig D; Grossfeld GD; Stein JP; Chen SC; Young LL; Taylor CR; Skinner DG; Lieskovsky G; Cote RJ

AUTHOR AFFILIATION: Department of Urology, University of Southern California School of Medicine, Los Angeles, USA.

SOURCE: J Urol 1995 Aug;154(2 Pt 1):474-8

CITATION IDS: PMID: 7609109 UI: 95333342

ABSTRACT: PURPOSE: To determine the incidence of occult lymph node metastases in patients with stage pT3N0 prostate cancer. MATERIALS AND METHODS: Lymph nodes from 95 patients with stage pT3N0 prostate cancer were analyzed by immunohistochemistry for extrinsic epithelial cells using epithelial-specific monoclonal antibodies. The extrinsic epithelial cells were also tested for prostate specific antigen expression. RESULTS: Occult lymph node metastases were identified in 15 cases (16%) and were more frequent in patients with high primary Gleason grade tumors and seminal vesicle invasion ($p = 0.03$). In all cases the extrinsic cells were of prostate origin based on prostate specific antigen expression. CONCLUSIONS: Occult lymph node metastases can be detected in a substantial proportion of patients with stage pT3N0 prostate cancer, are associated with known predictors of disease progression, and may be useful in identifying patients at risk for recurrence and progression.

MAIN MESH HEADINGS: Prostatic Neoplasms/*pathology

ADDITIONAL MESH HEADINGS:
Human
Incidence
Lymphatic Metastasis
Male
Neoplasm Staging
1995/08
1995/01 00:00

PUBLICATION TYPES: JOURNAL ARTICLE

LANGUAGES: Eng

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TITLE: Prostate specific antigen: a decade of discovery--what we have learned and where we are going [see comments]

AUTHORS: Polascik TJ; Oesterling JE; Partin AW

AUTHOR AFFILIATION: James Buchanan Brady Urological Institute, Johns Hopkins Medical Institutions, Baltimore, Maryland, USA.

SOURCE: J Urol 1999 Aug;162(2):293-306

CITATION IDS: PMID: 10411025 UI: 99336806

COMMENT: Comment in: J Urol 2000 Apr;163(4):1259-60

ABSTRACT: PURPOSE: Many advances have occurred during the last decade in the clinical use of prostate specific antigen (PSA) for detecting, staging and monitoring prostate cancer. We review the clinical usefulness and limitations of serum PSA as a tumor marker of prostate cancer. MATERIALS AND METHODS: The English language literature was reviewed with respect to the major contributions and limitations of PSA in present clinical practice. RESULTS: Although controversial, age specific PSA reference ranges can improve the sensitivity for prostate cancer detection in young men and the specificity in older men. Percent free PSA improves the specificity for prostate cancer detection in men with PSA values between 4 and 10 ng./ml., and a PSA density of greater than 0.15 may better distinguish benign prostatic hyperplasia from prostate cancer. PSA velocity can improve the ability to detect prostate cancer when 3 serial PSA values are measured during a 2-year period. For prostate cancer staging PSA is most useful combined with clinical stage and Gleason score in multivariate analysis. Percent free PSA may prove useful for staging prostate cancer but further clinical trials are needed to determine its clinical usefulness. PSA is the most clinically useful means to monitor disease recurrence after treatment of prostate cancer. With ultrasensitive PSA assays it is now possible to increase the lead time for detection of disease recurrence by several months. CONCLUSIONS: During the last decade much of the focus has been on improving the ability of this tumor marker to detect prostate cancer. PSA remains the best and most widely used tumor marker in urology today.

MAIN MESH HEADINGS: Prostate-Specific Antigen/*blood
Prostatic Neoplasms/*blood

ADDITIONAL MESH HEADINGS: Forecasting
Human
Male
Neoplasm Staging

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Related Articles | External Links

TITLE: Trends in mortality rates in patients with prostate cancer during the era of prostate specific antigen screening.

AUTHORS: Merrill RM; Stephenson RA

AUTHOR AFFILIATION: Department of Health Science, College of Health and Human Performance, Brigham Young University, Provo, Utah, USA.

SOURCE: J Urol 2000 Feb;163(2):503-10

CITATION IDS: PMID: 10647666 UI: 20112192

ABSTRACT: PURPOSE: We assess the influence of prostate specific antigen screening on trends in mortality rates in patients with prostate cancer. MATERIALS AND METHODS: The incidence based mortality method was applied to prostate cancer data from the Surveillance, Epidemiology, and End Results Program. This method links data on patients diagnosed with cancer to vital status and cause of death, such that mortality can be evaluated by factors associated with disease at diagnosis. Prostate and nonprostate cancer mortality rates were evaluated according to patient age at death, disease stage and grade at diagnosis, race and whether additional cancers involving other sites were present. RESULTS: Mortality due to prostate cancer decreased from 37% in 1988 to 30% in 1995 largely as a result of a sharp increase in nonprostate cancer mortality rates. The overall trend in prostate cancer mortality rates increased from 1988 through 1992 and then decreased. The increase and decrease in rates occurred across categories of age, race, grade and number of cancer primaries. However, the increase in rates did not occur in distant staged cases, nor did the subsequent decrease in rates occur in nondistant staged cases. CONCLUSIONS: Prostate specific antigen screening influenced the increase and decrease in prostate cancer mortality rates.

MAIN MESH HEADINGS:
Prostate-Specific Antigen/*blood
Prostatic Neoplasms/*blood
Prostatic Neoplasms/*mortality

ADDITIONAL MESH HEADINGS:
Aged
Aged, 80 and over
Human
Incidence
Male
Middle Age
SEER Program
2000/01